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10/075,216	02/14/2002	Michael Alois Kolowski	DN2002024	7021

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EXAMINER

MAKI, STEVEN D

ART UNIT

PAPER NUMBER

1733

DATE MAILED: 01/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/075,216

Applicant(s)

KOLOWSKI ET AL.

Examiner

Steven D. Maki

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

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- 1) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 2) Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it is unclear how many central array(s) are being claimed since lines 2-3 describe "a central array" whereas line 4 describes "each central array". In claim 1 lines 2-3, it is suggested to change "a central array" to --central arrays--.

In claim 1 line 2, "tread element" should be --tread elements-- since a plurality of tread elements are described on line 1 of claim 1.

In dependent claim 6, it is unclear if "many" broadens the scope of claim 1. In claim 6 line 2, it is suggested to change "many" to --at least five--.

In claim 8, the description of "turned oppositely" appears inconsistent with "inclined similarly". In claim 8, it is suggested to change the wherein clause to --wherein the tread pattern is non-directional--.

Claim 10 is indefinite because the preamble indicates a method is being claimed whereas the body of the claim does not appear to contain any active method steps.

- 3) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Japan '210

5) **Claims 1, 4, 6, 7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan '210 (JP 8-324210).**

As to claims 1, 6 and 7, the claimed tread reads on the tread having the tread pattern shown in figure 1. The claimed central array reads on an inclined row of blocks bounded by slant grooves 2,2 which are inclined at 10-30 degrees. Figure 1 of Japan '210 indicates that such a central array (inclined row of blocks) comprises five blocks.

As to claim 4, the first boundary groove reads on a combination of slant groove 2d and the portion of groove 2a at the end of the inclined block row. The second boundary groove reads on a combination of another slant groove 2a and the portion of transverse groove 2c at the other end of the inclined row of blocks. Claim 4 fails to require the specific S-shape illustrated in applicant's figure 8.

As to claim 9, the tread pattern in figure 1 of Japan '210 is asymmetrical.

Japan '207

6) **Claims 1, 4 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan '207 (JP 6-135207).**

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As to claims 1 and 6-8, the claimed tread reads on the tread having the tread pattern shown in figure 1. The claimed central array reads on the "central array" comprising seven blocks 121A, 121B, 121C, 121D, 121E, etc.

As to claim 4, the circumferential ends of two adjacent slant grooves 26 are connected by a portion of a circumferential groove 19L, 19R. The claimed first boundary groove reads on the combination of one of the slant grooves 26 and the portion of circumferential groove 19L extending from one end of the one slant groove to one end of the other slant groove. The claimed second boundary groove reads on the other slant groove 26 and the portion of the circumferential groove 19R extending from the other end of the other slant groove to the other end of the one slant groove. Claim 4 fails to require the specific S-shape illustrated in applicant's figure 8.

Japan '935

7) Claims 1-3 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan '935 (JP 6-143935).

Japan '935 discloses a pneumatic tire having a tread comprising a central region separated from side regions by circumferential grooves 4. Each side region 3 comprises a row of shoulder blocks separated by transverse grooves. The central region comprises "central arrays" wherein each central array comprises six blocks. One complete central array is illustrated in figure 1. The first and sixth blocks each contain three both ending opening sipes 11. The slant groove 7 terminates in the second and fifth blocks. The second and fifth blocks each contain five both end opening sipes. The middle third and fourth blocks each contain one both end opening sipe and two one end

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opening sipes. The slant groove 7 is inclined at an angle of 5-30 degrees with respect to the plane inclusive of the tread circumference (the equatorial plane).

In claim 1, the claimed tread is anticipated by the tread of Japan '935. Each claimed central array reads on the above noted six blocks (six tread elements) in the central region. As to the centerline being inclined at less than 45 degrees, Japan '935's array is inclined at an angle corresponding to the inclination angle of 5-30 degrees of the slant groove 7.

As to claims 2-3, tread element reads on an element in the tread which is defined by (1) a pair of transverse grooves, (2) a pair of transverse sipes or (3) a transverse sipe and a transverse groove. The central array in figure 1 of Japan '935, therefore, contains 24 tread elements.

As to claim 6, the illustrated tread pattern of Japan '935's figure 1 demonstrates a repeating mosaic shape.

As to claim 7, Japan '935's array is inclined at an angle corresponding to the inclination angle of 5-30 degrees of the slant groove 7.

As to claim 8, the tread of Japan '935 has a non-directional tread pattern.

8) **Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '935 (JP 6-143935) in view of Campos et al (US 4598748).**

As to claim 5, it would have been obvious to one of ordinary skill in the art to provide Japan '935's tread with the claimed three or more distinct pitches since (1) the geometric pattern of the central array of Japan '935 repeats along the circumference of the tire and (2) Campos et al suggests using at least three different pitches for a

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repeating geometric pattern such as that shown in figure 1 to reduce noise (col. 1 lines 45-47, col. 3 lines 5-10).

9) Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '935 (JP 6-143935) in view of Japan '607 (JP 4-193607).

As to claim 9, it would have been obvious to one of ordinary skill in the art to provide the shoulder rows of Japan '935 with different number of blocks without changing the central region and thereby make the tread pattern asymmetric since Japan '607 teaches using different number of blocks in shoulder rows without changing the central region to provide the tire with good straight running performance (compare figures 2 and 4 and see abstracts).

10) Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '935 (JP 6-143935) in view of Japan '109 (JP 5-58109).

As to claim 10, it would have been obvious to one of ordinary skill in the art to size the tread elements of Japan '935 such that the length of the central array is about equal to the length of the contact patch of the tire since (a) Japan '935 teaches making the cutting length of the slant groove 7 longer than the ground contact length to obtain high drainage and (b) Japan '109 teaches providing a slant groove 2 with a length of 100-300% of the length of the grounding shape in order to improve drainage (see for example paragraph 9 of the machine translation of Japan '109). As to the remaining "steps", note Japan '935's teaching to design and create the tread such that it has the pattern shown in figure 1.

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Remarks

11) The remaining references are of interest.


12) No claim is allowed.

13) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Steven D. Maki
December 22, 2003


STEVEN D. MAKI 12-22-03
PRIMARY EXAMINER
~~GROUP 1300~~
AU 1733